



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,433	03/26/2001	Michael A. Robinson	10003782-2	2013
7590	05/19/2004		EXAMINER	
			PAYNE, DAVID C	
		ART UNIT	PAPER NUMBER	
		2633	10	
DATE MAILED: 05/19/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/818,433	ROBINSON ET AL
Examiner	Art Unit	
David C. Payne	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 March 2004 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohhata et al. US 6,304,357 B1 (Ohhata) in view of Paschal et al. US 6462852 B1 (Paschal).

Re claims 1, 10, 12 Ohhata disclosed:

A fiber optic receiver, comprising: a substrate (*see Ohhata, e.g., col./line:*); a receiver optical sub-assembly (ROSA) mounted on the substrate (*Figure 1, see Ohhata, e.g., col./line: 11/41-46, 13/60-65*); an opto-electronic transducer (*APD of Figure 1*) incorporated within the ROSA and configured to generate an electrical data signal in response to a received optical data signal; a preamplifier circuit (*PRE of Figure 1, see Ohhata, e.g., col./line: 6/35-40*) incorporated within the ROSA, coupled to the optoelectronic transducer, and operable to linearly amplify (*see Ohhata, e.g., col./line: 5/47-55*) an electrical data signal generated by

the opto-electronic transducer; and an adjustable bandwidth (*see Ohhata, Figure 14, e.g., col./line:11/1-5*) post-amplifier circuit (*PRE of Figure 1, see Ohhata, e.g., col./line: 6/38-42*) mounted on the substrate and coupled to an output of the preamplifier circuit.

Ohhata does not disclose

a fiber optic connector for coupling to a mating connector of a fiber optic cable.

Paschal disclosed

an optical connector (Figure 6a) for connecting an optical receiver to a fiber optic cable.

It would have been obvious to one of ordinary skill in the art at the time of invention to connect the receiver and optic cable via connector to facilitate easy insertion and removal of the receiver from a larger system.

Re claim 9,

Ohhata disclosed where output buffers could be used to extract a signal to the next stage (*see Ohhata, e.g., col./line:11/37-40, 12/55-60*).

4. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohhata et al. US 6,304,357 B1 (Ohhata) and Paschal et al. US 6462852 B1 (Paschal) as applied to claim 1 above, and in further view of North US006118829A (North).

Re claims 2 the modified invention of Ohhata and Paschal does not disclose:

wherein the **post-amplifier** circuit comprises a switch for setting a bandwidth response of the post-amplifier circuit in response to a received data rate control signal.

North disclosed a pre-amplifier circuit that operates to adjust the bandwidth response and

Art Unit: 2633

sensitivity of a communications receiver (e.g., col./line: 4/40-55). It would have been obvious to one of ordinary skill in the art at the time of invention to apply bandwidth response settings in the post amplifier stage of Ohhata as in the pre-amp stage of North to limit bandwidth response to only that required to obtain good pulse fidelity so that less of the background noise spectrum is amplified and the input sensitivity can be kept correspondingly lower as disclosed by North (see col./line: 3/25-31). Furthermore, the principal of applying a bandwidth response modification of an amplifier stage applies no matter what stage adjustment occurs and achieves the same result.

Re claims 3-5

the modified invention as disclosed teaches wherein the post-amplifier circuit further comprises a low-pass filter, voltage capacitor (222) coupled to the switch (230) (North, col./line: 5/54-65). While the voltage capacitor is not shown to be variable, these are extremely well known in the art for adjusting frequency responses in a circuit.

5. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohhata et al. US 6,304,357 B1 (Ohhata) and Paschal et al. US 6462852 B1 (Paschal) as applied to claim 1 above, and in further view of and in further view of Lee et al. US 6,362,911 (Lee).

Re claims 6-8,

the modified invention of Ohhata and North does not disclose a wide bandwidth signal and low bandwidth signal coupled to a multiplexer. Lee disclosed (Figure 1) a wide bandwidth signal (output of 12a) and low bandwidth signal (output of 12b) coupled to a multiplexer

(16). It would have been obvious to one of ordinary skill in the art at the time of invention to use such an arrangement in the Ohhata /North invention for the benefit capable of improving receiver sensitivity as disclosed in Lee (see col./line: 2/25-32).

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohhata et al. US 6,304,357 B1 (Ohhata) and Paschal et al. US 6462852 B1 (Paschal) as applied to claim 1 above, and in further view of Pinoow US 4,912,525 (Pinoow).

Re claim 11,

The modified invention of Ohhata and Paschal as taught does not disclose a housing for the circuit. Pinoow disclosed a housing (*24 of Figure 3*) for an optical receiver. However, it would have been obvious to one of ordinary skill in the art at the time of invention to use a housing for the circuit to protect it from environmental degradation. Furthermore, it is extremely well known in the art to provide housing for electronics.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (703) 306-0004. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600